

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for optimizing electromagnetic energy in a system for processing an image of an object in order to perform a procedure on an object, comprising the steps of:

- (a) applying to an object a plurality of light beams formed of incoherent light at a plurality of differing frequencies and reflecting said plurality of applied incoherent light beams from said object to provide a plurality of reflected light beams;
- (b) providing a corresponding plurality of electrical signals representative of the reflected light beams of said plurality of reflected light beams;
- (c) determining a corresponding plurality of image quality metrics in accordance with said plurality of electrical signals;
- (d) determining a corresponding plurality of images in accordance with said plurality of image quality metrics;
- (e) selecting an image of said plurality of images in accordance with a predetermined image criterion to provide a selected image;
- (f) determining a frequency of said plurality of differing frequencies in accordance with said selected image to provide a determined frequency; and

(g) performing said procedure on an object in accordance with said determined frequency.

2. (Previously Presented) The method for optimizing electromagnetic energy of Claim 1, comprising the further step of determining a plurality of frequency distributions in accordance with said plurality of differing frequencies.

3. (Previously Presented) The method for optimizing electromagnetic energy of Claim 2, comprising the further step of determining a plurality of image quality metrics in accordance with said plurality of frequency distributions.

4. (Previously Presented) The method for optimizing electromagnetic energy of Claim 3, comprising the further step of optimizing an image of said plurality of images.

5. (Previously Presented) The method for optimizing electromagnetic energy of Claim 1, wherein said predetermined image criterion is selected in accordance with the light absorption properties of a selected tissue.

6. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5, wherein said selected tissue comprises tumor tissue.

7. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5, wherein said selected tissue comprises lesion tissue.

8. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5, wherein said selected tissue comprises blood tissue.

9. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5, wherein said predetermined image criterion is selected in accordance with the light absorption properties of a tissue pathology.

10. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5, comprising the further step of locating said selected tissue in an eye of a patient in accordance with determined frequency.

11. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5 comprising the further steps of:

- (a) applying a further light beam of said determined frequency to a selected tissue; and
- (b) performing surgery upon said selected tissue in accordance with said further light beam.

12. (Previously Presented) The method for optimizing electromagnetic energy of Claim 5, wherein said eye has a selected tissue feature comprising the further step of determining changes in said selected tissue feature in accordance with said determined selected light frequency.

13. (Previously Presented) The method for optimizing electromagnetic energy of Claim 4, comprising the further step of applying said plurality of reflected light beams to a spatial light modulator and an image sensor to provide said plurality of signals representative of said reflected light beams.

14. (Previously Presented) The method for optimizing electromagnetic energy of Claim 13, further comprising the step of determining said plurality of image quality metric in accordance with said signals representative of said reflected light as:

$$J = \int |F\{\exp[i\gamma I(x, y)]\}|^4 dx dy$$

where F is a Fourier transform and \tilde{a} is a parameter dependent upon a dynamic range of said reflected light beam.

15. (Previously Presented) The method for clarifying an optical/digital image of an object Claim 1, comprising the further steps of:

- (a) applying to said object a superposition light beam and reflecting said superposition light beam from said object to provide a reflected superposition light beam;
- (b) providing a superposition image in accordance with said reflected superposition light beam; and
- (c) superimposing said selected image and said superposition image to provide a composite image

16. (Previously Presented) The method for clarifying an optical/digital image of an object of Claim 15, comprising the further step of performing said procedure in accordance with said composite image.

17. (Previously Presented) The method for clarifying an optical/digital image of an object of Claim 16, comprising the further step of applying said selected image and said superposition image to a superposition screen in order to provide said composite image.

18. (Previously Presented) The method for clarifying an optical/digital image of an object of Claim 17, wherein said object has a selected feature comprising the further step of optimizing at least one of said selected image and said superposition image to emphasize a visualization of said selected feature.

19. (Previously Presented) The method for clarifying an optical/digital image of an object of Claim 18, wherein said object is an eye comprising the further step of de-emphasizing a visualization of blood.

20. (Previously Presented) The method for clarifying an optical/digital image of an object of Claim 18, comprising the further step of adjusting an amount of emphasizing of said visualization during a performance of said procedure.

21. (Previously Presented) The method for clarifying an optical/digital image of an object of Claim 20, comprising the further step of adjusting an amount of emphasizing of said selected feature by adjusting the relative contributions of said selected image and said superposition image to said composite image.

Please add new claims 22-34.

22. (New) A method for performing a medical procedure on an patient having an iris, comprising:

- (a) obtaining an iris biometric image representative of said iris; and
- (b) performing said medical procedure on said patient in accordance with said iris biometric image.

23. (New) The method for performing a medical procedure on an patient having an iris of Claim 22, further comprising:

- (a) obtaining first and second iris biometric images; and
- (b) comparing said first and second iris biometric images to provide a biometric comparison result.

24. (New) The method for performing a medical procedure on an patient having an iris of Claim 23, further comprising the further step of identifying an patient in accordance with said biometric comparison result.

25. (New) The method for performing a medical procedure on an patient having an iris of Claim 23, wherein said patient has at least one feature and said feature is represented within at least one of said first and second biometric images.

26. (New) The method for performing a medical procedure on an patient having an iris of Claim 25, further comprising identifying an iris in accordance with said at least one feature.

27. (New) The method for performing a medical procedure on an patient having an iris of Claim 26, further comprising performing said medical procedure in accordance with said identifying.

28. (New) The method for performing a medical procedure on an patient having an iris of Claim 26, further comprising determining a location of said iris in accordance with said at least one feature.

29. (New) The method for performing a medical procedure on an patient having an iris of Claim 26, further comprising determining an orientation of said iris in accordance with said at least one feature.

30. (New) The method for performing a medical procedure on an patient having an iris of Claim 26, further comprising altering a relative location of said iris in accordance with said at least one feature.

31. (New) The method for performing a medical procedure on an patient having an iris of Claim 22, further comprising performing a surgical procedure.

32. (New) The method for performing a medical procedure on an patient having an iris of Claim 22, further comprising performing a diagnosis on said patient.

33. (New) The method for performing a medical procedure on an patient having an iris of Claim 22, further comprising translating said patient within a coordinate system.

34. (New) The method for performing a medical procedure on a patient having an iris of Claim 22, further comprising performing said medical procedure upon an eye of said patient.